### **Program 115 - Transportation Operations**

#### **Program Outcome Statement**

Plan, operate and maintain the City's transportation system to meet the community's current and future access needs, by:

- -Designing optimal street layout as it applies to traffic control, signaling, signage and street lights,
- -Performing transportation planning, traffic studies and intergovernmental coordination,
- -Maintaining the traffic signal system in a safe and efficient manner,
- -Optimizing City pavement condition to maintain safe and functional streets, and
- -Maintaining street signs, markings and lighting in a safe and efficient manner.

#### So that:

Program Outcome Measures	Weight	2002/2003 Budget	2002/2003 Achieved	2003/2004 Current	2004/2005 Proposed	2005/2006 Proposed
<ul> <li>The Vehicle Collision Rate (collisions per million vehicle miles of travel) is at the base year of FY 1999/2000.</li> <li>Number</li> </ul>	4	2.50	2.05	2.50	2.50	2.50
<ul> <li>Travel speeds on major streets are maintained within norms as defined by the Highway Capacity Manual, with respect to volume, capacity and speed.</li> </ul>	_	100.000	100 000/	100 000	100.000	100 000/
<ul> <li>Percent</li> <li>All major transportation studies are completed as scheduled 90% of the time.</li> </ul>	5	100.00%	100.00%	100.00%	100.00%	100.00%
- Percent	3	90.00%	100.00%	90.00%	90.00%	90.00%
• Emergency traffic signal repairs are completed within one hour 90% of the time.						
- Percent	3	90.00%	93.00%	90.00%	90.00%	90.00%
• Streetlight outages are repaired within 24 hours, 90% of the time.						
- Percent	3	90.00%	73.43%	90.00%	90.00%	90.00%
• A customer satisfaction rating of 90% is achieved for the safety and reliability of traffic operations.						
- Rating	3	90.00%	99.00%	90.00%	90.00%	90.00%
• The Budget/Cost Ratio (planned cost divided by actual cost) is at 1.0.						
- Ratio	4	1.00	1.01	1.00	1.00	1.00

### **Program 115 - Transportation Operations**

#### **Program Notes**

- 1. Staff considers the vehicle collision rate to be one of the more important measures in this program. However, collision rates are influenced by a number of factors unrelated to controllable elements of the City Transportation and Traffic program. Economic cycles, weather, and other acts of nature and society will cause the collision rate to fluctuate. Currently, the poor economy may be having an impact on lower collision rates, and they may rise again as the economy recovers. The collision rate measure is set at a "typical" year rate from 1999/2000.
- 2. The Highway Capacity Manual is produced by the Transportation Research Board, a unit of the National Academy of Sciences. The manual interprets research on the characteristics and performance of transportation systems to provide engineering standards for the most effective design and use of transportation systems. Research and updating of the manual is conducted by a program comprised of more than 300 committees, task forces, and panels, with over 3,700 engineering, scientific, legal, and administrative professionals.

### **Program 115 - Transportation Operations**

Service Delivery Plan 11501 - Traffic Design

### **SDP Outcome Statement**

Design City street layouts to promote the safe and efficient movement of traffic, by:

- -Designing roadway channelizations, bikeways and lighting modifications,
- -Completing volume, speed and parking studies, and
- -Analyzing and archiving traffic accident reports, so that:

	2002/2003	2002/2003	2003/2004	2004/2005	2005/2006
SDP Outcome Measures	Budget	Achieved	Current	Proposed	Proposed
<ul> <li>The Vehicle Collision Rate (accidents per million vehicle miles of travel) is at the base year of FY 1999/2000.</li> <li>Number</li> </ul>	2.50	2.05	2.50	2.50	2.50
<ul> <li>Travel speeds on major streets are maintained within norms as defined by the Highway Capacity Manual, with respect to volume, capacity and speed.</li> <li>Percent</li> </ul>	100.00%	100.00%	100.00%	100.00%	100.00%
<ul> <li>90% of approved roadway modifications are designed within 45 days in conformance to specifications.</li> <li>Percent</li> </ul>	90.00%	100.00%	75.00%	90.00%	90.00%
<ul> <li>90% of traffic signal lighting modifications are completed within established deadlines and in conformance to specifications.</li> <li>Percent</li> </ul>	90.00%	0.00%	90.00%	90.00%	90.00%

### **SDP Notes**

1. The traffic signal lighting modifications measure was not reported in FY 2002/03.

**Program 115 - Transportation Operations** 

Service Delivery Plan 11501 - Traffic Design

	2002/2003 Budget	2002/2003 Achieved	2003/2004 Current	2004/2005 Proposed	2005/2006 Proposed
Activity 115000, 115001, 115002 - Design of Traffic Control Elements					
Product: A Service Request Completed					
Costs:	88,736.99	78,965.21	92,132.76	111,508.14	116,891.27
Products:	500.00	380.00	500.00	475.00	475.00
Work Hours:	1,595.05	1,226.58	1,461.96	1,625.50	1,625.50
Product Cost:	177.47	207.80	184.27	234.75	246.09
Activity 115010, 115011, 115012, 115013 - Warrant Studies  Product: A Warrant Study Completed  Costs:  Products:  Work Hours:	31,258.94 14.00 580.37	15,030.41 14.00 244.06	31,224.24 14.00 479.03	37,746.55 16.00 533.75	39,501.21 16.00 533.75
Product Cost:	2,232.78	1,073.60	2,230.30	2,359.16	2,468.83
Activity 115020, 115021, 115022, 115023, 115024 - Prepare Data/Analy Product: An Action Completed	vses				
Costs:	77,814.06	72,229.96	43,757.53	87,518.04	91,586.19
Products:	600.00	2,776.00	600.00	3,425.00	3,425.00
Work Hours:	1,535.92	1,449.33	654.88	1,207.00	1,207.00
Product Cost:	129.69	26.02	72.93	25.55	26.74

## **Program 115 - Transportation Operations**

Service Delivery Plan 11501 - Traffic Design

	2002/2003 Budget	2002/2003 Achieved	2003/2004 Current	2004/2005 Proposed	2005/2006 Proposed
Activity 115030, 115031, 115032 - Permits and Internal Requests					
Product: An Action Completed					
Costs:	75,372.94	77,896.11	75,704.01	94,159.88	98,733.13
Products:	550.00	245.00	550.00	250.00	250.00
Work Hours:	1,377.64	1,328.24	1,212.74	1,382.89	1,382.89
Product Cost:	137.04	317.94	137.64	376.64	394.93
Activity 115040, 115041, 115042, 115043 - Planning Studies					
Product: A Study Completed					
Costs:	288,018.14	215,145.53	255,757.43	239,706.30	250,570.44
Products:	30.00	10.00	30.00	16.00	16.00
Work Hours:	3,746.01	3,198.54	2,698.34	2,870.11	2,870.11
Product Cost:	9,600.60	21,514.55	8,525.25	14,981.64	15,660.65
Activity 115050, 115051, 115052 - Citizen Inquiries					
Product: An Inquiry Answered					
Costs:	89,936.22	51,081.71	96,737.06	37,986.96	39,833.82
Products:	1,490.00	127.00	1,091.00	42.00	42.00
Work Hours:	1,530.06	1,067.23	1,473.48	521.62	521.62
Product Cost:	60.36	402.22	88.67	904.45	948.42
Totals for Service Delivery Plan 11501 - Traffic Design					
Costs:	651,137.29	510,348.93	595,313.03	608,625.87	637,116.06
Work Hours:	10,365.05	8,513.98	7,980.43	8,140.87	8,140.87

### **Program 115 - Transportation Operations**

### Service Delivery Plan 11502 - Major Transportation Studies and Intergovernmental Coordination

#### **SDP Outcome Statement**

Conduct transportation studies and provide intergovernmental coordination to improve traffic safety and accommodate increases in travel demand, by:

- -Conducting major transportation studies,
- -Conducting intergovernmental studies, and
- -Developing and representing the City's interests with citizens and outside governmental agencies, so that:

	2002/2003	2002/2003	2003/2004	2004/2005	2005/2006
SDP Outcome Measures	Budget	Achieved	Current	Proposed	Proposed
<ul> <li>All major transportation studies are completed as scheduled 95% of the time.</li> <li>Percent</li> </ul>	90.00%	100.00%	90.00%	95.00%	95.00%
<ul> <li>95% of new or revised transportation improvement plans are submitted to the outside agencies on schedule.</li> <li>Percent</li> </ul>	95.00%	100.00%	95.00%	95.00%	95.00%
<ul> <li>90% of regularly scheduled citizen group and outside agency meetings are attended by City staff.</li> <li>Percent</li> </ul>	90.00%	97.14%	90.00%	90.00%	90.00%
◆ 90% of Congestion Management Agency monitored intersections are rated level of service 'E' or better or have an approved deficiency plan (13 intersections are monitored).					
- Percent	90.00%	100.00%	90.00%	90.00%	90.00%

### **SDP Notes**

**Program 115 - Transportation Operations** 

Service Delivery Plan 11502 - Major Transportation Studies and Intergovernmental Coordination

	2002/2003 Budget	2002/2003 Achieved	2003/2004 Current	2004/2005 Proposed	2005/2006 Proposed
Activity 115220, 115221, 115222, 115223, 115224, 115225, 115226 - In  Product: An Action Completed  Costs:	tergovernmental Coord	ination 148,692.53	167,412.35	181,290.44	189,816.64
Products: Work Hours:	215.00 2,555.96	90.00 2,402.37	215.00 2,043.46	135.00 2,050.08	135.00 2,050.08
Product Cost:	867.18	1,652.14	778.66	1,342.89	1,406.05
Totals for Service Delivery Plan 11502 - Major Transportation Studie	s and Intergovernmenta	l Coordination			
Costs:	186,443.50	148,692.53	167,412.35	181,290.44	189,816.64
Work Hours:	2,555.96	2,402.37	2,043.46	2,050.08	2,050.08

### **Program 115 - Transportation Operations**

### Service Delivery Plan 11503 - Traffic Signal Operations and Maintenance

#### **SDP Outcome Statement**

Maintain City traffic signals to facilitate the safe and efficient movement of traffic through signalized intersections, by:

- -Performing preventive maintenance on City traffic signals,
- -Conducting emergency repairs in a timely manner, and
- -Optimizing the operation of traffic signals, so that:

	2002/2003	2002/2003	2003/2004	2004/2005	2005/2006
SDP Outcome Measures	Budget	Achieved	Current	Proposed	Proposed
<ul> <li>Preventive maintenance is performed as scheduled 95% of the time.</li> <li>Percent</li> </ul>	95.00%	100.00%	95.00%	95.00%	95.00%
• Emergency repairs are completed within one hour of notification 90% of the time.					
- Percent	90.00%	93.00%	90.00%	90.00%	90.00%
<ul> <li>85% of all traffic signals and interconnect systems are optimized annually.</li> <li>Percent</li> </ul>	75.00%	136.00%	50.00%	85.00%	85.00%

#### **SDP Notes**

<sup>1.</sup> The FY 2002/03 actual cost and work hours reported for activity 115460 Optimize Traffic Signals are low because this activity was supplemented by a one time capital project. The productivity measurements for FY 2001/02 are more representative of the performance level for this activity.

**Program 115 - Transportation Operations** 

Service Delivery Plan 11503 - Traffic Signal Operations and Maintenance

<u>-</u>	2002/2003 Budget	2002/2003 Achieved	2003/2004 Current	2004/2005 Proposed	2005/2006 Proposed
Activity 115450, 115451, 115452, 115453 - Operate and Maintain Signals Product: A Maintenance Action	S				
Costs:	693,603.91	703,077.14	657,729.33	695,277.14	712,416.11
Products:	1,800.00	578.50	1,800.00	515.00	515.00
Work Hours:	3,042.54	3,954.57	2,734.72	2,911.35	2,911.35
Product Cost:	385.34	1,215.35	365.41	1,350.05	1,383.33
Activity 115460, 115461 - Optimize Traffic Signals  Product: A Signal Optimized  Costs:  Products:  Work Hours:	74,710.55 110.00 1,236.95	48,658.83 132.00 893.38	71,354.80 110.00 1,036.89	64,371.30 100.00 863.70	67,046.91 100.00 863.70
Product Cost:	679.19	368.63	648.68	643.71	670.47
Totals for Service Delivery Plan 11503 - Traffic Signal Operations and M	laintenance				
Costs:	768,314.46	752,685.96	729,084.13	759,648.44	779,463.02
Work Hours:	4,279.49	4,849.95	3,771.61	3,775.05	3,775.05

### **Program 115 - Transportation Operations**

#### Service Delivery Plan 11506 - City Streetlight System

#### **SDP Outcome Statement**

Maintain City street lighting systems in a safe, cost-effective, and efficient manner, by:

- -Providing PG&E power to the street lights,
- -Performing corrective repairs to defective street light systems, and
- -Providing construction services for new and damaged street lights, so that:

	2002/2003	2002/2003	2003/2004	2004/2005	2005/2006
SDP Outcome Measures	Budget	Achieved	Current	Proposed	Proposed
<ul> <li>Streetlight outages are repaired within 24 hours, 90% of the time.</li> <li>Percent</li> </ul>	90.00%	73.43%	90.00%	90.00%	90.00%
<ul> <li>85% of City streetlights are functioning on survey nights.*</li> <li>Percent</li> </ul>	95.00%	95.00%	85.00%	85.00%	85.00%
<ul> <li>Streetlight pole knockdowns are repaired within 5 days, 95% of the time.</li> <li>Percent</li> </ul>	95.00%	100.00%	95.00%	95.00%	95.00%

#### **SDP Notes**

- 1. The measure marked by an \* was reduced to 85% in FY 2003/04 as part of the budget reduction plan. This represents a reduction in night surveys, from once every month to once every other month. With the longer period of time between surveys, staff expects more outages would be identified on the survey nights.
- 2. Starting in FY 2004/05, the product description for the Survey Streetlights activity has been changed to "A Streetlight Survey Completed" (115719). The product goal of 10 surveys include 6 bimonthly surveys of a certain route in the City, including arterials and downtown areas, and 4 quarterly surveys of the industrial areas of the City. A total of 2,593 lights are surveyed bimonthly. Previously, the product was "A Streetlight Surveyed", which did not reflect the cost to complete each survey (115711).
- 3. The FY 2002/03 actual product reported for Activity 115700 Provide Electrical Power for Streetlight System was an error; it should have been 8,858, and FY 2003/04 should have been 8,861.

**Program 115 - Transportation Operations** 

	2002/2003 Budget	2002/2003 Achieved	2003/2004 Current	2004/2005 Proposed	2005/2006 Proposed
Activity 115700 - Provide Electrical Power for Streetlight System					
Product: A Streetlight Powered					
Costs:	522,426.76	713,462.05	532,876.66	542,552.66	542,556.06
Products:	8,000.00	808.00	8,000.00	8,861.00	8,861.00
Work Hours:	1.00	137.00	1.00	1.00	1.00
Product Cost:	65.30	883.00	66.61	61.23	61.23
Activity 115701 - Provide Streetlight Construction					
Product: An Occasion					
Costs:	21,872.97	188.95	22,530.30	434.71	456.16
Products:	10.00	0.00	10.00	1.00	1.00
Work Hours:	150.00	4.00	150.00	8.00	8.00
Product Cost:	2,187.30	0.00	2,253.03	434.71	456.16
Activity 115702 - Repair Streetlights - Electrical					
Product: An Occasion					
Costs:	34,534.22	49,516.81	36,322.35	52,910.83	55,037.16
Products:	530.00	644.00	530.00	530.00	530.00
Work Hours:	502.00	852.50	502.00	669.00	669.00
Product Cost:	65.16	76.89	68.53	99.83	103.84

**Program 115 - Transportation Operations** 

	2002/2003 Budget	2002/2003 Achieved	2003/2004 Current	2004/2005 Proposed	2005/2006 Proposed
Activity 115703 - Repair Streetlights - Conduit					
Product: A Lineal Foot	2 201 00	5 400 10	2 470 00	6.022.01	c 200 0 c
Costs:	3,291.00	5,432.12	3,470.09	6,023.81	6,289.96
Products:	50.00	15.00	50.00	10.00	10.00
Work Hours:	50.00	102.50	50.00	100.50	100.50
Product Cost:	65.82	362.14	69.40	602.38	629.00
Activity 115704 - Repair/Replace Streetlight Lamps Product: A Lamp Repaired/Replaced					
Costs:	58,590.70	70,309.02	61,990.44	68,034.54	70,495.96
Products:	1,400.00	922.00	1,400.00	930.00	930.00
Work Hours:	975.00	760.00	975.00	766.00	766.00
Product Cost:	41.85	76.26	44.28	73.16	75.80
Activity 115705 - Repair/Replace Signal Light Lamps Product: A Lamp Repaired/Replaced					
Costs:	3,749.18	6,052.75	3,962.12	5,865.08	6,006.31
Products:	25.00	20.00	25.00	20.00	20.00
Work Hours:	60.00	15.00	60.00	15.00	15.00
Product Cost:	149.97	302.64	158.48	293.25	300.32

**Program 115 - Transportation Operations** 

<u>-</u>	2002/2003 Budget	2002/2003 Achieved	2003/2004 Current	2004/2005 Proposed	2005/2006 Proposed
Activity 115706 - Repair/Replace Sign Lamps					
Product: A Lamp Repaired/Replaced					
Costs:	3,749.18	1,790.50	3,962.12	3,095.03	3,217.60
Products:	35.00	59.00	35.00	60.00	60.00
Work Hours:	60.00	37.50	60.00	38.00	38.00
Product Cost:	107.12	30.35	113.20	51.58	53.63
Activity 115707 - Repair Streetlight Knockdowns  Product: A Knockdown Repaired					
Costs:	41,448.99	28,441.03	42,685.58	24,121.15	25,104.57
Products:	19.00	29.00	19.00	19.00	19.00
Work Hours:	300.00	533.80	300.00	350.00	350.00
Product Cost:	2,181.53	980.73	2,246.61	1,269.53	1,321.29
Activity 115708 - Complete Corrective Repairs-PG & E Problem Product: An Occasion					
Costs:	3,613.43	7,381.96	3,880.16	8,422.35	8,838.24
Products:	90.00	122.00	90.00	120.00	120.00
Work Hours:	80.00	158.00	80.00	155.00	155.00
Product Cost:	40.15	60.51	43.11	70.19	73.65

**Program 115 - Transportation Operations** 

	2002/2003 Budget	2002/2003 Achieved	2003/2004 Current	2004/2005 Proposed	2005/2006 Proposed
Activity 115709 - Complete Corrective Repairs - Contractor					
Product: An Occasion					
Costs:	1,832.79	5,177.68	1,968.08	4,347.02	4,561.67
Products:	35.00	12.00	35.00	10.00	10.00
Work Hours:	40.00	104.00	40.00	80.00	80.00
Product Cost:	52.37	431.47	56.23	434.70	456.17
Activity 115710 - Complete Miscellaneous Service Requests					
Product: An Occasion Costs:	2 240 19	1 022 27	2 457 10	2 026 74	2 171 72
Products:	3,249.18 30.00	1,923.27 10.00	3,457.12 30.00	3,036.74	3,171.73
				5.00	5.00
Work Hours:	60.00	46.50	60.00	46.50	46.50
Product Cost:	108.31	192.33	115.24	607.35	634.35
Activity 115711 - Survey Streetlights (Replaced by 115719) Product: A Streetlight Surveyed					
Costs:	7,285.40	2,752.90	2,598.05	0.00	0.00
Products:	900.00	23.00	900.00	0.00	0.00
Work Hours:	140.00	67.50	47.00	0.00	0.00
Product Cost:	8.09	119.69	2.89	0.00	0.00

## **Program 115 - Transportation Operations**

	2002/2003	2002/2003	2003/2004	2004/2005	2005/2006
	Budget	Achieved	Current	Proposed	Proposed
Activity 115712 - Renumber Streetlight Poles  Product: A Pole Renumbered  Costs:  Products:  Work Hours:	16,437.91	5,909.71	8,725.08	5,431.36	5,643.01
	1,200.00	0.00	1,200.00	600.00	600.00
	315.00	161.50	158.00	79.00	79.00
Product Cost:	13.70	0.00	7.27	9.05	9.41
Activity 115713 - Provide Graffiti Removal Product: An Occasion Costs: Products: Work Hours:	5,714.48	8,314.70	6,117.14	5,720.83	5,994.35
	110.00	337.50	110.00	200.00	200.00
	140.00	211.00	140.00	122.00	122.00
Product Cost:	51.95	24.64	55.61	28.60	29.97
Activity 115714 - Coordinate Utility Locates  Product: A Utility Located  Costs:  Products:	12,481.35	10,631.00	13,383.54	14,955.17	15,670.78
	300.00	306.50	300.00	325.00	325.00
Work Hours: Product Cost:	300.00	256.50	300.00	300.00	300.00
	41.60	34.69	44.61	46.02	48.22

**Program 115 - Transportation Operations** 

	2002/2003 Budget	2002/2003 Achieved	2003/2004 Current	2004/2005 Proposed	2005/2006 Proposed
Activity 115715 - Provide Fabrication/Equipment Repair Product: A Work Hour					
Costs:	0.00	2,717.91	0.00	2,183.60	2,291.13
Products:	0.00	57.00	0.00	40.00	40.00
Work Hours:	0.00	57.00	0.00	40.00	40.00
Product Cost:	0.00	47.68	0.00	54.59	57.28
Activity 115716 - Provide Maintenance/Repair for Facilities/Storage Product: A Work Hour					
Costs:	1,374.58	7,154.14	1,476.06	3,215.83	3,328.05
Products:	30.00	120.50	30.00	30.00	30.00
Work Hours:	30.00	120.50	30.00	30.00	30.00
Product Cost:	45.82	59.37	49.20	107.19	110.94
Activity 115717 - Provide Administration Product: A Work Hour					
Costs:	11,695.87	10,297.31	12,416.97	20,376.03	21,375.28
Products:	233.00	145.50	233.00	308.00	308.00
Work Hours:	233.00	145.50	233.00	308.00	308.00
Product Cost:	50.20	70.77	53.29	66.16	69.40

**Program 115 - Transportation Operations** 

<u> </u>	2002/2003 Budget	2002/2003 Achieved	2003/2004 Current	2004/2005 Proposed	2005/2006 Proposed
Activity 115718 - Provide Training					
Product: A Work Hour					
Costs:	3,832.79	8,155.47	3,988.08	3,803.63	3,991.47
Products:	40.00	166.00	40.00	70.00	70.00
Work Hours:	40.00	166.00	40.00	70.00	70.00
Product Cost:	95.82	49.13	99.70	54.34	57.02
Activity 115719 - Survey Streetlights (Replaces 115711)					
Product: A Streetlight Survey Completed					
Costs:	0.00	0.00	0.00	1,652.97	1,734.60
Products:	0.00	0.00	0.00	10.00	10.00
Work Hours:	0.00	0.00	0.00	35.00	35.00
Product Cost:	0.00	0.00	0.00	165.30	173.46
Totals for Service Delivery Plan 11506 - City Streetlight System					
Costs:	757,180.78	945,609.28	765,809.94	776,183.34	785,764.09
Work Hours:	3,476.00	3,936.30	3,226.00	3,213.00	3,213.00

## **Program 115 - Transportation Operations**

**Totals for Program 115** 

ouns for 11 ogram 110	Costs:	2,363,076.03	2,336,840.32	2,257,619.45	2,325,748.09	2,392,159.81
	Work Hours:	20,676.50	19,702.60	17,021.50	17,179.00	17,179.00